

United States Environmental Protection Agency POSITION DESCRIPTION COVERSHEET		1. DUTY LOCATION Cincinnati, OH		2. POSITION NUMBER SP00016	
3. CLASSIFICATION ACTION: a. Reference of Series and Date of Standards Used to Classify this Position 0800 11/08; 1300 HRCDD-4 12/97 Computer Science Series, GS-1550 TS-83 January 1988 Professional Work in the Physical Science Group, GS-1300 HRCDD-4 December 1997					
	b. Title	c. Pay Plan	d. Series	e. Grade	f. CLC
Official Allocation	Environmental Engineer *	GS	0819 *	13	
4. Supervisor's Recommendation	Interdisciplinary Scientist(Engineer)	GS	0819	13	
5. ORGANIZATIONAL TITLE OF POSITION (if any) Water Distribution Model Applications Engineer			6. NAME OF EMPLOYEE Vacant		
7. ORGANIZATION (Give complete organizational breakdown)			c. Drinking Water Treatment and Distribution Branch		
a. U.S. ENVIRONMENTAL PROTECTION AGENCY			f.		
b. Office of Research and Development			g.		
c. National Risk Management Research Lab			h. Employing Office Location Cincinnati, OH		
d. Water Systems Division			i. Organization Code NBAB0000		
8. SUPERVISORY STATUS					
<input type="checkbox"/> [2] Supervisor or Manager. Position requires the exercise of supervisory or managerial responsibilities that meet, at least, the minimum requirements for application of the General Schedule Supervisory Guide (GSSG) or similar standards for minimum supervisory responsibility specified in other position classification standards. <input type="checkbox"/> [4] Supervisor. Position meets the definition of Supervisor in 5.U.S.C. 7103(a)(10), but does not meet the minimum requirements for application of the GSSG. <input type="checkbox"/> [5] Management Official. Position meets the definition of Management Official in 5.U.S.C. 7103(a)(11), but does not meet the GSSG definition of Supervisor/Manager or the definition of Supervisor in 5.U.S.C. 7103(a)(10). <input type="checkbox"/> [6] Lead. Position leads a team performing one-grade interval work and meets the minimum requirements for application of Part I of the Work Leader Grade Evaluation Guide (WLGE) or is under a wage system and meets similar minimum requirements as specified by those job standards or other directives of the applicable pay system. <input type="checkbox"/> [7] Team Leader. Position leads a team performing two-grade interval work and meets the minimum requirements for application of Part II of the WLGE. <input checked="" type="checkbox"/> [8] All Other Positions. Position does not meet any of the above definitions. This is a non-supervisor/non-managerial position.					
9. SUPERVISORY CERTIFICATION I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships and that the position is necessary to carry out governmental functions for which I am responsible. The certification is made with the knowledge that this information is to be used for statutory purposes relating to appointment and payment of public funds, and that false or misleading statements may constitute violations of such statutes or their implementing regulations.					
a. Typed Name and Title of Immediate Supervisor Regan Murray, Acting Deputy Division Director			d. Typed Name and Title of Second-Level Supervisor Sandhya Parshionikar, Acting Division Director		
b. Signature REGAN MURRAY <small>Digitally signed by REGAN MURRAY Date: 2018.08.09 16:32:54 -04'00'</small>		c. Date	e. Signature SANDHYA PARSHIONIKAR <small>Digitally signed by SANDHYA PARSHIONIKAR Date: 2018.08.09 17:36:36 -04'00'</small>		f. Date
10. OFFICIAL CLASSIFICATION CERTIFICATION: I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.					
a. Promotion Potential <input checked="" type="checkbox"/> This position has no promotion potential <input type="checkbox"/> If position develops as planned and employee progresses satisfactorily, this position has known promotion potential to grade:					
b. PSB Risk Designation <input type="checkbox"/> 1 Low <input checked="" type="checkbox"/> 2 Moderate <input type="checkbox"/> 3 High Security Clearance Required: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		c. Financial Disclosure Form <input type="checkbox"/> OGE-450 Required <input type="checkbox"/> OGE-278 Required <input checked="" type="checkbox"/> No financial disclosure forms required		d. "Identical, Additional" (IA) Allocation This position <input checked="" type="checkbox"/> may be IA'ed <input type="checkbox"/> may not be IA'ed <input type="checkbox"/> is limited to current incumbent	
		e. FLSA Determination NONEXEMPT <input checked="" type="checkbox"/> EXEMPT* (*check exemption category) <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> Professional <input type="checkbox"/> Executive		f. Functional Classification Code 11	
g. Bargaining Unit Code 1308	h. Check, if applicable: <input type="checkbox"/> Medical Monitoring Required <input checked="" type="checkbox"/> Extramural Resources Management Duties (<u>10.00</u> % of time) <input type="checkbox"/> This position is subject to random drug testing ()		i. Classifier's Signature 		j. Date 9/4/18
11. REMARKS Interdisciplinary Scientist/Engineer * Physical Scientist- GS-1301-13, Computer Scientist- GS-1550-13, Environmental Engineer-GS-0893-13 Hydrologist-GS-1315-13					

**INTERDISCIPLINARY
SCIENTIST/ENGINEER GS-13**

POSITION SUMMARY:

As a Principal Investigator you will:

- Conduct independent research in response to EPA's priorities;
 - Lead a team of researchers;
 - Serve as a senior scientist and technical authority;
 - Manage extramural research projects related to in-house research support contract(s).
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MAJOR DUTIES AND RESPONSIBILITIES:

DUTY 1	30%
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Conduct independent research in response to EPA's priorities. Formulate concepts, develop hypotheses, prepare research plans, carry out investigations and experiments, analyze and interpret results, and develop methods. Conduct analysis of data collected to summarize and effectively communicate results to project participants, research community, and agency personnel. Publish findings in technical publications and journals. Participate in technical workshops, professional workshops, and scientific meetings and symposia for the purpose of presenting research results and maintaining a current awareness of development and advances in environmental science.

DUTY 2	30%
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Lead a team of researchers. Plan, direct, and coordinate research efforts intended to establish new methods or approaches. Define objectives and organize the collection and reporting of data; Train and provide technical direction to team members; analyze and interpret resulting data; prepare reports and articles for publication in scientific journals; and relate experimental results to the mission of EPA by means of oral and written technical communications.

DUTY 3	30%
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Serve as a senior scientist and technical authority. Perform comprehensive studies for a wide variety of program initiatives in order to form the technical basis for new standards, program direction, and/or an understanding of scientific problems. Advise scientists and officials both within and outside the government. Facilitate collaborative experimentation with other scientists and serve on scientific task forces and committees.

DUTY 4

10%

Manage extramural research projects related to in-house research support contract(s). Serve as a Project Officer or Contracts Work Assignment Manager, and the Contracting Officer's technical representative, for the purpose of monitoring the technical progress and performance of specific delegated portions of the work under extramural vehicles. Prepare procurement requests, statements of work, and estimated budgets. Monitor costs and manage overall technical performance.

Area of expertise or other related information:

1. Incumbent will build models to represent a drinking water distribution system (e.g., EPANET). He/she will also apply these models for engineering analysis for optimizing a community's distribution system. Candidate will help develop and program EPANET modules in conjunction with programming team.
2. Employee will have a be able to work with geographic information systems (GIS) and have experience with porting data from geospatial databases to models such as EPANET
3. The employee will have the ability to collect pressure, flow, and water quality data in the field and provide expert interpretation of these data regarding proper operation and maintenance of a community's distribution system.
4. Employee will calibrate existing drinking water distribution system models

RECRUITMENT KNOWLEDGES, SKILLS AND ABILITIES (KSAs):

Specific knowledge/skills/abilities not covered above:

- a. Skill in hydraulic modeling.
 - b. Skill in computer programming.
 - c. Skill in oral communication.
 - d. Skill in written communication.
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FACTOR LEVEL DESCRIPTIONS:

Factor 1 - Knowledge Required by the Position

Level 1-8 (1550 points)

Mastery of and skill in applying the advanced theories, concepts, principles, practices, and methodology of science and/or engineering, sufficient to:

- serve as a recognized expert in the specific area of emphasis;
- design and implement research projects in response to EPA priorities;
- extend and adapt existing approaches and apply them to the investigation of critical

Standardized PD - Interdisciplinary Scientist/Engineer (Principal Investigator), GS-13 (FPL: 13) UPDATED 1/21/2016 WSWRD

- or obscure problems;
- apply the latest developments in the field to resolve controversial problems;
- recommend ways to advance EPA programs and methods; and
- incorporate the latest developments in science and/or engineering into technical guidelines.

Factor 2 - Supervisory Controls

Level 2-4 (450 points)

The supervisor outlines overall objectives and available resources. The employee and supervisor, in consultation, discuss timeframes and scope of assignments, including possible stages and approaches. The employee independently plans and carries out assignments, resolves most conflicts, coordinates work with others as necessary, interprets policy and regulatory requirements, develops changes to plans and methodology, and recommends improvements to meet program objectives. Employee keeps the supervisor informed of progress and potentially controversial concerns. Completed work is reviewed for soundness of overall approach, effectiveness in producing expected results, feasibility of recommendations, and adherence to requirements.

Factor 3 - Guidelines

Level 3-4 (450 points)

Guidelines include legislation, agency policy and regulations, professional scientific literature, and standard scientific references. Guidelines specific to research assignments are often general, scarce, not applicable, or have gaps in specificity, requiring considerable interpretation and/or adaptation. The employee uses judgment, initiative, and resourcefulness in deviating from established methods to solve problems, research trends and patterns, propose new policies and practices, develop new methods, and modify and refine existing guidelines.

Factor 4 - Complexity

Level 4-5 (325 points)

The work consists of rigorous scientific investigation, analysis, and interpretation of environmental problems and issues, and the resulting development of new methods and criteria. Assignments are characterized by abstract concepts, uncertainties in methodology, conflicts between scientific and regulatory requirements, continually changing scientific developments, and intricate and variable data. The work requires the employee to develop standards, methods, and techniques which extend existing methodology, as well as anticipate future trends and propose solutions to highly visible and/or controversial environmental problems.

Factor 5 - Scope and Effect

Level 5-5 (325 points)

The purpose of the work is to research critical environmental issues to expand existing knowledge and inform Agency policy and regulation. The work affects the development of mission-oriented scientific understanding, and the state-of-the-art in the specific area of emphasis.

Factors 6/7 - Personal Contacts/Purpose of Contacts Levels 3c (180 points)

Personal contacts include high-level personnel throughout the Agency, at other Federal agencies, at the state and local government level, in private industry, and in academia.

Primary purpose of contacts is to influence and persuade people who may be skeptical or uncooperative. The employee defends proposed approaches, negotiates settlement of differences, and resolves problems. Secondary purpose of contacts is to collect and exchange information, and to provide consultation on problems.

Factor 8 - Physical Demands

Level 8-1 (5 points)

Work is usually performed sitting or standing, with occasional walking, bending or climbing during field studies or site visits.

Factor 9 - Work Environment

Level 9-1 (5 points)

The work may be performed in both a typical office setting and a laboratory environment.

TOTAL POINTS: 3290

GS-13 Grade Range: 3155-3600

Position Risk Designation: XXX

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IN THIS SECTION

Position Designation Record

Agency	Environmental Protection Agency
Position Title	Environmental Engineer
Series and Grade/Pay Band	GS-0819-13
Position Description Number	SP00016
Designator's Name & Title	John Ellsworth

Potential for Compromise or Damage

Duties	Degree of Potential for Compromise or Damage
Government operations – rulemaking, policy, and major program responsibility (includes regulation or policy making, directing, implementing, advising and audits)	One or more of the following: <ul style="list-style-type: none">• Mid-level management duties or assignments• Assists agency rule-makers or policy decision-makers for significant public trust government programs in an influential way• Responsible for independent or semi-independent action with moderate impact on efficiency and integrity of the service• Significant public contact about important government programs impacting the public's trust
Public safety and health services, regulation, enforcement, and protection (Food safety and inspection, occupational health and safety, transportation safety, environmental safety and hazard mitigation)	<ul style="list-style-type: none">• The position aids or supports the duties in this category; however, the responsibilities are so narrow in scope or carried out under such restrictive controls that the risk of violating the public's trust is very limited

Adjustment for Program Designation and Level of Supervision

Adjustments	Label
Adjustment for Scope of Program and Correlation to Extent of Impact (see definitions)	Agency impact
Adjustment for level of supervision or other controls	Limited or no supervision - ability to act independently in almost all areas almost all of the time

Total Points Designation

Label	Points	Investigation	Form Required
Total Initial Position Designation Points from Step 2	16	T2 and T2S	SF 85P
Adjusted Position Designation Points from Step 3	21		

Sensitivity	Risk Level
Non-Sensitive	Moderate Risk

Signature:  _____ Date: 9/4/18